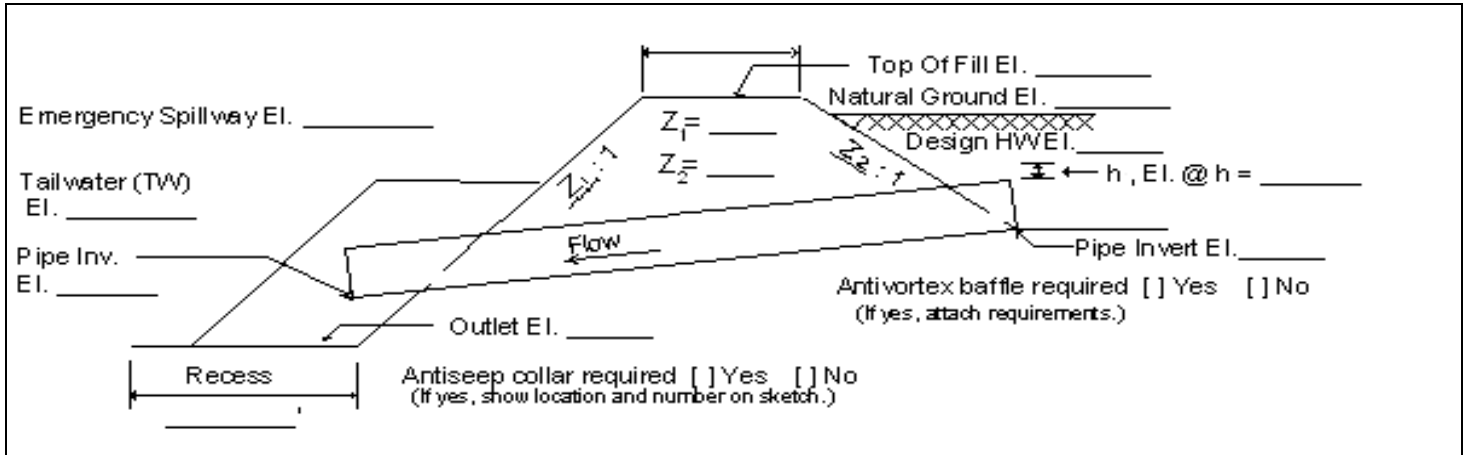# STRUCTURE FOR WATER CONTROL - DESIGN AND CHECK SHEET
(Pipe Overfall Structure)

Cooperator: _____ Location: _____

Conservation District: _____ Field Office: _____

Identification No. _____ Field No.: _____ Gully No.: _____ Structure No. : _____

Drainage Area = _____ acres   Required Discharge (Q_R) = _____ cfs

Pipe diameter = _____ in.   Pipe Area, a = _____ sq.ft.

Pipe length, L = _____ ft   Coefficient of roughness n = _____

Entrance loss coefficient, Ke = ____   Head loss coefficient, Kp = _____

Head, H = HW El. _____ - TW El. [1] _____ = _____ ft

Design Discharge $(Q_D) = a \sqrt{\dfrac{2gH}{1+Ke+KpL}}$ = _____ cfs   Velocity, $v = \dfrac{Q_D}{a}$ = _____ fps

Minimum h_1 : for CMP = $0.022\ v^2$ = _____ ft   for other pipes, h_1 = $0.017\ v^2$ = _____ ft

[1] Use the higher elevation of TW El. or 0.75 pipe diameter above pipe outlet invert.

Designed By: _____ Date: _____ Checked By: _____ Date: _____

Approved By: _____ Date: _____

Construction Check

	Pipe Diameter Inches	Pipe Length ft.	Inlet Invert Elev. ft.	Outlet Invert Elev., ft.	Top Fill Elev., ft.
Planned					
Check					

Type of pipe: _____ Gage or thickness: _____

Type of connecting bands: _____

Condition of vegetation: _____

Comments: _____

This practice meets NRCS specifications: _____ Date: _____
(Signature)